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**AMENDMENT**

**IN THE CLAIMS:** *Please amend claims 1, 2, 4-12, 19-21, 23, 24 and 26-28 and add new claims 35 and 36 as follows:*

1 (Amended). An isolated nucleic acid encoding an everminomicin biosynthetic pathway gene product from a *Micromonospora carbonacea*.

2 (Amended). An isolated nucleic acid encoding a polypeptide comprising an amino acid sequence selected from SEQ ID NOs: 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 101, 103, 105, 107, 109, 111, 113, 115, 117, 119, 121, 123, 125, 127, 129, 131, 133, 135, 137, 139, 141, 143, 145, 147, 149, 151, 153, 155, 157, 159, 161, 163, 165, 167, 169, 171, 173, 175, 184, 186, 188, 190, 192, 194, 196, 198, 200, 202 and 204.

4 (Amended). An isolated nucleic acid comprising a coding sequence from the nucleotide sequence of SEQ ID NO:1.

5 (Amended). The isolated nucleic acid of claim 4 comprising a nucleotide sequence selected from SEQ ID NOs: 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126, 128, 130, 132, 134, 136, 138, 140, 142, 144, 146, 148, 150, 152, 154, 156, 158, 160, 162, 164, 166, 168, 170, 172, 174, 183, 185, 187, 189, 191, 193, 195, 197, 199, 201 and 203.

6 (Amended). The isolated nucleic acid of claim 2, wherein the gene product is involved in orsellinic acid biosynthesis.

7 (Amended). The isolated nucleic acid of claim 2, wherein the gene product is a sugar biosynthetic gene product.

8 (Amended). The isolated nucleic acid of claim 2, wherein the gene product is a glycosyltransferase.

9 (Amended). The isolated nucleic acid of claim 2, wherein the gene product is a tailoring enzyme.

10 (Amended). The isolated nucleic acid of claim 2, wherein the gene product is a regulatory gene product.

11 (Amended). The isolated nucleic acid of claim 2, wherein the gene product is involved in a resistance mechanism.

12 (Amended). An expression vector comprising a nucleic acid of claim 2 operably associated with an expression control sequence.

19 (Amended). An isolated polypeptide comprising an amino acid sequence selected from SEQ ID NOs: 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 101, 103, 105, 107, 109, 111, 113, 115, 117, 119, 121, 123, 125, 127, 129, 131, 133, 135, 137, 139, 141, 143, 145, 147, 149, 151, 153, 155, 157, 159, 161, 163, 165, 167, 169, 171, 173, 175, 184, 186, 188, 190, 192, 194, 196, 198, 200, 202 and 204.

20 (Amended). A modified *Micromonospora carbonacea*, wherein an everninomicin biosynthetic pathway gene is knocked-out or over-expressed.

21 (Amended). A modified *Micromonospora carbonacea*, wherein an everninomicin biosynthetic pathway gene according to claim 2 is knocked-out or over-expressed.

23 (Amended). A vector comprising a nucleic acid encoding a *Micromonospora carbonacea* everninomicin biosynthetic pathway resistance gene product according to claim 19.

24 (Amended). A method for selecting for a transfected or transformed host cell, comprising selecting a host cell containing the vector of claim 23 and cultured in the presence of an amount of everninomicin that is toxic to the host cell which does not contain the vector.

26 (Amended). An isolated nucleic acid encoding a polypeptide comprising the amino acid sequence of SEQ ID NO: 177.

27 (Amended). An isolated nucleic acid comprising the nucleotide sequence of  
SEQ ID NO: 176.

28 (Amended). A vector for integration in an actinomycete host cell comprising the  
nucleic acid of claim 26.

35 (New). An isolated nucleic acid which is a complement of the nucleic acid of claim 2.

36 (New). An isolated polypeptide comprising the amino acid sequence of  
SEQ ID NO: 177.

**IN THE SPECIFICATION:**

***Please replace pages 7-13 in the present specification with the following pages:***